

**Draft
Environmental Assessment**

**Robb-Ledford Wildlife Management Area
Grazing Lease**

February 2019



***Montana Fish,
Wildlife & Parks***

Draft Environmental Assessment MEPA, NEPA, MCA 23-1-110 CHECKLIST

PART I. PROPOSED ACTION DESCRIPTION

1. **Type of proposed state action:** Montana Fish, Wildlife & Parks (FWP) proposes to renew an existing grazing lease on the Robb-Ledford Wildlife Management Area (RLWMA) for 9 years.

2. **Agency authority for the proposed action:** The RLWMA was acquired under FWP’s authority to acquire property for fish, wildlife, and recreation pursuant to 87-1-241, Montana Code Annotated (MCA). FWP further has the authority to issue leases of land under its control in exchange for services to be provided by the lessee on the leased land pursuant to 87-1-209 (7), MCA. Under FWP’s Land Lease-Out Policy, the department Director is the appropriate level of authority to approve this lease renewal. The Fish and Wildlife Commission must also approve all grazing leases on Wildlife Management Areas.

3. **Anticipated Schedule:**
Public Comment Period: February 20–March 22, 2019
Decision Notice: March 2019
Presented to the FWP Commission for Approval: April 2019
Proposed Lease in Effect: June 1, 2020 through October 31, 2028

4. **Location affected by proposed action (county, range and township – included map):** The RLWMA is located in southwest Montana (Figure 1) along the western slopes of the Snowcrest Mountains, approximately 30 miles southeast of Dillon. The RLWMA lies in portions of Madison and Beaverhead Counties and encompasses parts of T9S, R4W; T9S, R5W; T10S, R4W; T10S, R5W; T11S, R5W.

5. **Project size—estimate the number of acres that would be directly affected that are currently:**

	<u>Acres</u>		<u>Acres</u>
(a) Developed:		(d) Floodplain	<u>0</u>
Residential	<u>0</u>		
Industrial	<u>0</u>	(e) Productive:	
(existing shop area)		Irrigated cropland	<u>0</u>
(b) Open Space/ Woodlands/Recreation	<u>0</u>	Dry cropland	<u>0</u>
(c) Wetlands/Riparian Areas	<u>515</u>	Forestry	<u>1,334</u>
		Rangeland	<u>30,595</u>
		Other	<u>0</u>

The proposed action would directly affect 32,444 acres, including: 17,291 acres administered by FWP; 10,818 acres administered by Montana Department of Natural Resources and Conservation (DNRC) that are leased by FWP; 3,620 acres administered

by DNRC that are leased by the Ledford Creek Grazing Association (LCGA); and 715 acres administered by the Bureau of Land Management (BLM) that are leased by the LCGA. Because the grazing pastures within the RLWMA are incorporated into a larger coordinated grazing system that includes adjacent United States Forest Service (USFS) and BLM lands leased by the LCGA, project decisions could indirectly affect an additional 11,260 and 6,077 acres administered by the USFS and BLM, respectively. (Figure 1).

7. Permits, Funding & Overlapping Jurisdiction.

(a) Permits: None required.

(b) Funding: FWP would provide funding for:

- Completion of the lease renewal environmental assessment (EA);
- Supplies for periodic maintenance and repairs to fences and those portions of the Kelly Spring Waterline within the administrative boundaries of the RLWMA; and
- Noxious weed control along the Kelly Spring Waterline.

The grazing lessee would:

- Pay cash in exchange for grazing livestock on the RLWMA;
- Provide funding for contracted administration and maintenance of those portions of Kelly Spring Waterline within the administrative boundaries of the RLWMA; and
- Provide funding for maintenance of boundary and internal pastures fences across the WMA;

(c) Other Overlapping or Additional Jurisdictional Responsibilities:

- DNRC and BLM administer lands within the proposed grazing lease area.

8. Narrative summary of the proposed action:

Robb-Ledford Wildlife Management Area Grazing History

In 1987, the Rocky Mountain Elk Foundation (RMEF), supported by a donation from Anheuser-Busch Companies Inc., purchased 17,291 acres of deeded private land and 10,818 areas of associated DNRC grazing leases from the Robb Creek Cattle Association. FWP purchased the property from the RMEF in 1988 and named it the RLWMA. The RLWMA was FWP's first acquisition using funds from the Habitat Montana Program, which was established by the 1987 Montana State Legislature through House Bill 526. It was also the RMEF's first habitat conservation project. The RMEF, FWP, sportsmen, and livestock producers viewed the acquisition as an opportunity to provide a showcase for cooperative management between ranching and wildlife interests across a diversity of landownerships.

As part of the purchase agreement, the Robb Creek Cattle Association retained the grazing rights to the property until November 1, 1990. In 1991, FWP and the Montana Fish and

Wildlife Commission assumed control of grazing management and reduced annual grazing interest from six to four months and from approximately 9,600 to 5,855 animal unit months (AUM). The grazing practice was also changed from annual use to rest-rotation. In 1992, FWP completed the initial draft EA for grazing management on the RLWMA and proposed further reduction to 2,250 AUMs. The selected alternative was to graze a portion of the RLWMA, using Ledford Grazing Association cattle, following the principals of rest-rotation grazing outlined by Hormay (1970).

The proposed grazing allocation and EA created controversy among interest groups regarding FWP's intended management of the RLWMA. While some sportsmen's groups supported implementation of the proposed rest-rotation grazing system, others indicated that the EA lacked adequate evaluation of grazing impacts to wildlife and accused FWP of not managing the RLWMA to maximize benefit to fish and wildlife. Although livestock producers expected a reduction in AUMs, they felt the proposed reduction was too extreme, without justification, and did not consider associated impacts such as: negative impacts to wildlife on private lands as a result of increased summer grazing on those private lands; loss of hunter access to private lands out of landowner frustration with FWP; lost tax base to Madison County; and lost income to local ranching families. Livestock producers further articulated that lost income would likely force local ranches to be sold to wealthy individuals that would lock hunters out. Livestock producers accused FWP of only being concerned about wildlife habitat and not caring about local communities. Livestock producers recommended that reductions in grazing capacity be done incrementally as needed to address measured impacts to natural resources. They also recommended that working relationships be maintained through cooperation.

Subsequently, FWP and the Ledford Grazing Association negotiated annual grazing of up to 3,495 AUMs across the RLWMA, following a rest-rotation pattern, from 1992 through 1995. Beginning in 1996, FWP again proposed reducing AUMs across the RLWMA to 2,250. The objective was to achieve one AUM per six acres of grazable land. However, uncertainty remained regarding the amount of grazing land that would be available because of an ongoing land exchange between DNRC and the Snowcrest Ranch. Given this uncertainty, FWP committed to maintaining the annual grazing lease, using rest-rotation grazing at 3,495 AUMs through the 1999 grazing season. The grazing season was defined as June 15–October 15.

During June 1997, DNRC and the Snowcrest Ranch finalized their land exchange. In exchange for 11 parcels totaling 6,152 acres of DNRC lands within the Flying D Ranch in northeast Madison County, DNRC acquired two parcels totaling 11,539 acres of private lands in Robb and Ledford Creeks (Figure 2). During subsequent lease bidding for the newly acquired DNRC lands: members of the LCGA were awarded leases on two parcels totaling 5,893 acres; the Snowcrest Ranch was awarded the lease on one parcel totaling 5,286 acres; and FWP was awarded leases on two parcels totaling 360 acres (Figure 3).

With the land exchange complete and leases allocated, FWP drafted an EA describing grazing management options for the RLWMA. On May 12, 2000, the FWP Commission adopted a 10-year lease with the LCGA. The lease involved a six-pasture (three low elevation and three high elevation), three-treatment (early-graze, late-graze, and rest) rest-rotation design that included 17,291 acres of FWP deeded land, 10,818 acres of DNRC land leased by FWP, 200 acres of BLM land leased by the LCGA, and 3,600 acres of DNRC land leased by the LCGA. The lease allowed for up to 3,310 AUMs to be grazed annually during June 15–October 15. In order to implement the new grazing rotation and accommodate the level of grazing adopted by the FWP Commission, improvements needed to be made within the grazing area, including:

- A. Construct new interior pasture fences to manage cattle distribution;
- B. Removal of unnecessary internal fences;
- C. Construct two waterlines (known as Kelly Spring and Hogback) to address cattle distribution; and
- D. Construct a one-strand electric fence to distribute cattle away from tall larkspur (*Delphinium exaltatum*) at higher elevations until its toxicity to cattle diminished.

In 2008, it was decided that the Hogback Waterline would not be constructed because of estimated cost (\$112,000–\$142,000) and growing costs of grazing infrastructure on the RLWMA, which had reached approximately \$453,800 by the end of the 2000–2009 lease period (Table 1). By 2009, all other planned grazing improvements were complete. It also became apparent that the electric fences installed to distribute cattle away from tall larkspur were ineffective and were influencing cattle rotations in a manner that was facilitating riparian health concerns along portions of Robb Creek. Cattle rotations from low to high elevation pastures, that were scheduled for July 6, were being delayed until late-July or early-August—when plant phenology reduced tall larkspur toxicity to cattle. FWP staff determined that longer grazing periods in low elevation pastures were preventing riparian health standards from being met along portions of Robb Creek.

In 2009, FWP completed a third EA of the RLWMA. Poor riparian health conditions along portions of Robb Creek, within the Lower Robb Pasture, were identified through this EA. The FWP Commission subsequently approved renewal of the RLWMA grazing lease during 2010–2013 with four stipulations aimed at improving riparian health along Robb Creek:

- 1. Abandon electric fences intended to distribute livestock away from tall larkspur and require grazing lessees to assume risk of grazing cattle in areas occupied by tall larkspur;
- 2. Implement a hard date of July 6 for rotating livestock into high elevation pastures;
- 3. Construct fence to exclude livestock use of Robb Creek within the Lower Robb Pasture; and
- 4. Reduce annual maximum AUMs from 3,310 to 2,955.

Fences to exclude cattle from Robb Creek within the Lower Robb Pasture and associated livestock water gaps were completed during 2012–2013. The project increased FWP's grazing infrastructure costs by \$68,432.

In 2014, FWP completed a fourth EA of the RLWMA. Citing riparian health monitoring reports, FWP staff identified continued poor riparian health along portions of Rock Creek above the Rock Creek Reservoir. Monitoring demonstrated that riparian health had not improved following reduced livestock stocking rates and rest-rotation grazing implementation. Specific problems included wide and shallow sections of stream channel, failure of stream channel healing, and lack of woody vegetation establishment. On the contrary, willow species expansion since 1992 was noticeable along Rock Creek below the reservoir (Figures 4–7). Similar woody vegetation responses were also observed along portions of Robb (Figures 8–9) and Ledford Creeks (Figures 10–11).

FWP staff and grazing lessees agreed riparian health along upper Rock Creek needed to improve. Upon approval of the 2014–2019 grazing lease, the FWP Commission requested that FWP staff and the grazing lessees address riparian health concerns along Rock Creek. Prior to grazing the Rock Creek Pasture in 2016, a two-strand electric fence was constructed to exclude cattle from the upper portion of the Rock Creek Watershed (Figure 12) indefinitely. A two-strand electric fence was chosen because it would be less of an impediment to wildlife and it could be

efficiently dropped to the ground when cattle are not present. Through a Memorandum of Agreement with FWP, the LCGA assumed construction responsibility and ownership of the Rock Creek exclosure fence. Construction was completed without cost to FWP.

Current Livestock Grazing Management

Current livestock management across the RLWMA allows for up to 2,955 AUMs annually and follows rest-rotation principles described by Hormay (1970). RLWMA grazing management is coordinated with livestock grazing management on adjacent USFS, BLM, and DNRC lands. Within the RLWMA, livestock grazing occurs during June 22–October 15 annually. Livestock are rotated through low- and high-elevation pastures. On June 22, up to 1,118 animal units (AU) enter one low-elevation pasture and graze there until July 5. On July 6, all cattle rotate into one high-elevation pasture. On July 15, 352 AUs rotate to an adjacent USFS allotment, which follows a three-pasture rest-rotation design. The remaining 766 AUs remain in the high-elevation pasture on the RLWMA until August 15. On that date, 400 AUs rotate to an adjacent BLM allotment, which follows a two-pasture rest-rotation design, and 366 AUs rotate to a second high-elevation pasture within the RLWMA. On September 15, cattle rotate from the BLM allotment to the second high-elevation pasture within the RLWMA. On October 1, cattle rotate from the USFS allotment back to the RLWMA and all AUs rotate to the second low-elevation pasture within the RLMWA. On October 15, all AUs exit the second low-elevation pasture and the grazing season is complete (Table 4). One high- and low-elevation pasture within the RLWMA are rested from grazing annually.

Livestock Grazing Management Objectives

The 1999 RLWMA Management Plan outlined nine management objectives:

1. Maintenance or improvement of vegetation, soil, and water;
2. Expand benefits of rest-rotation grazing management to adjacent DNRC, BLM, and USFS lands;
3. Showcase the RLWMA as an area where wildlife and livestock can co-exist while maintaining healthy rangelands;
4. Provide winter forage for elk;
5. Provide habitat for all wildlife utilizing the WMA;
6. Incorporate adjacent public lands into management of the WMA;
7. Provide adequate public access;
8. Maintain the natural character of the land; and
9. Increase public awareness and appreciation for the diversity of wildlife on the WMA.

Livestock grazing was identified as the best practice to meet objectives two, three, and six and could be implemented while meeting objectives one, four, five, seven, eight, and nine. The overriding goal of the 1999 management plan was to demonstrate that, under careful and adaptive management, the needs of wildlife, rangelands, riparian areas, and livestock could be met simultaneously in space and time. Effective management examples would benefit wildlife habitat on: A) federal public lands where livestock grazing is part of the multi-use management mandate; B) Montana state-owned lands where livestock production is used to generate funds for the state school trust; and C) private lands used for livestock production.

Since 2000, the 1999 RLWMA Management Plan has been implemented using formal grazing leases with the LCGA. To date, all management objectives have been achieved or progress is being made toward achievement.

Objective 1: In general, rangeland and riparian health has improved across the RLWMA (Hansen pers. comm.) and uplands within the RLWMA have maintained a healthy component of native plant species (Harrington pers. comm.). Riparian health monitoring identified non-improving conditions along portions of Rock Creek above the Rock Creek Reservoir. It was determined during follow-up assessments that intense livestock trampling was a primary cause of poor riparian health. To facilitate improved conditions, livestock grazing was removed from the upper portion of the Rock Creek Watershed indefinitely beginning in 2016. Riparian health monitoring will continue within portions of the Rock Creek Watershed closed and open to livestock grazing. Riparian monitoring also identified non-improving conditions along portions of Swamp Creek. It was determined during follow-up assessments that current livestock grazing management was not the primary cause. The primary cause was deep channel incisement. In spite of broad rangeland condition improvement, poor conditions remain on some sites and the potential for further improvement at those sites remains high. Completed grazing infrastructure improvements and set livestock move dates are expected to further improve these sites (Fish, Wildlife & Parks 2013). FWP will continue to use monitoring and adaptive management to identify and address habitat health.

Objective 2: The Robb-Ledford Cooperative Grazing System (RLCGS) includes lands administered by FWP, BLM, USFS, DNRC leased by FWP, and DNRC leased by the LCGA.

Objective 3: The RLWMA provides summer livestock pasture for four southwest Montana based cattle operations while supporting diverse assemblages of game and non-game wildlife species. Elk (*cervus elaphus*), mule deer (*Odocoileus hemionus*), white-tail deer (*Odocoileus virginianus*), moose (*Alces alces shirasi*), pronghorn (*Antilocapra Americana*), greater sage-grouse (*Centrocercus urophasianus*), blue grouse (*Dendragapus obscures*), ruffed grouse (*Bonasa umbellus*), mountain goats (*Oreamnos americanus*), Rocky Mountain big horn sheep (*Ovis Canadensis canadensis*), black bears (*Ursus americanus*), grizzly bears (*Ursus arctos*), grey wolves (*Canis lupus*), mountain lions (*Puma concolor*), coyotes (*Canis latrans*), bobcats (*Lynx rufus*), American beavers (*Castor Canadensis*) and dozens of non-game species have been have maintained or enhanced across the RLWMA and surrounding lands since implementation of the RLCGS.

Ritter and Gower (2013) demonstrated that small mammal diversity and density within the RLWMA are comparable to the neighboring un-grazed Blacktail WMA and suggested that grazing management within the RLWMA was having no detrimental effects on small mammal assemblages. FWP completed beaver occupancy surveys on the Robb-Ledford and Blacktail WMAs in 2009 and 2010. Beaver colony densities were similar between the two WMAs and were within the normal range of beaver colony densities across North America described by Hill (1982).

FWP established several rangeland monitoring sites on the RLWMA in 2003. They were read in 2003, 2004, 2008, and 2013. In general, results demonstrated that uplands within the RLWMA are healthy and contain assemblages of native vegetation expected for monitored sites. Invasive plant species are present but do not occur at levels that significantly impacting the native ecosystem. Soils are intact and show little sign of accelerated erosion. Given the short monitoring history and the high annual variability in weather, confirming long term trends in vegetation is not feasible at this time (Montana Fish, Wildlife and Parks 2013).

Objective 4: The number of wintering elk observed along the west Snowcrest Mountains

has fluctuated annually but maintained stability since the mid-1990s (Figure 13). Harvest management of antlerless elk, aimed at managing the Gravelly Elk Management Unit population within management objective range, has been the most influential factor on population trend. Wintering elk use of the RLWMA has continued since implementation of the RLCGS (Figure 14).

Members of the LCGA provide habitat, including forage, for up to 825 wintering elk, 125 wintering mule deer, 125 year around antelope, and approximately 300 year around white-tail deer on their 20,295 deeded acres within Madison and Beaverhead counties (Barnosky pers. comm.).

Objective 5: All wildlife species documented in the 1999 RLWMA Management Plan continue to occupy the RLWMA. Elk, mule deer, moose, pronghorn, and grouse species continue to use the RLWMA year around as conditions allow. Mountain goats occasionally use the highest elevations of the RLWMA. Grizzly bears, grey wolves, and bighorn sheep have recently established use of the RLWMA. Thompson and Hansen (2006) documented increased beaver presence within several RLWMA riparian areas. Small mammal diversity and abundance was determined comparable to the un-grazed Blacktail WMA (Ritter and Gower 2013).

Objective 6: Inholdings and adjacent lands administered by DNRC, BLM, and USFS have been incorporated into the rest-rotation system.

Objective 7: The RLWMA is annually open to many forms of public recreation during May 15–December 1 and closed to all public recreation during December 2–May 14 to reduce disturbance to wintering ungulates. Implementation of the RLCGS does not reduce the public’s ability to access the RLWMA or surrounding public lands or prevent the public from experiencing portions of the RLWMA without livestock presence annually. No livestock are present on the RLWMA during October 16–June 21. During the grazing period, June 22–October 15, livestock are present in one of six pastures at any point in time. No livestock use occurs on approximately 33% of the RLWMA annually.

Additional offsite sportsmen access is realized through cooperation with members of the LCGA, which provide approximately 1,250 hunter-days annually for all huntable species on their deeded land (Barnosky pers. comm.). Access to the LCGA’s deeded lands facilitates further public access to neighboring public lands. One member of the LCGA, the Silver Springs Ranch, coordinates with FWP to maintain a Fishing Access Site to the Ruby River on their deeded lands.

Objective 8: The RLWMA remains dominated by intact native ecotypes. Some fences and water tanks have been constructed while others have been removed. There have been no structure developments since the RLWMA was purchased. No roads have been added since the RLWMA was purchased while several have been decommissioned. Maintaining summer pasture for members of LCGA has allowed them to maintain their deeded lands as intact open space that remains functional wildlife habitat.

Objective 9: Since implementing the Robb-Ledford Management Plan, FWP has completed: A) four EAs of the property; B) small mammal distribution and abundance surveys; C) beaver distribution and abundance surveys; D) winter elk and moose population surveys; E) spring and winter mule deer surveys; F) rangeland monitoring; G) contracted riparian and upland assessments; H) public field trips; and I) several public work days aimed at habitat enhancement and education.

9. Description and analysis of reasonable alternatives:

Alternative A: No Grazing

Under no grazing, the existing grazing lease would expire and there would be no livestock grazing authorized on RLWMA deeded or DNRC lands leased by FWP. The DNRC lease type would likely change from agricultural to special use, resulting in higher lease rates. No physical or social impacts from livestock would be present on RLWMA deeded or DNRC lands. More forage would be available to wintering elk within FWP deeded and DNRC leased lands, but less forage would likely be available within DNRC lands leased by the LCGA as a result of increased stocking rate and removal of periodic rest. The Gravelly Elk Management Unit elk population currently exceeds management objective (Figure 15) and is producing calves at near record rate (Figure 16). Therefore, increased winter forage on RLWMA would not facilitate increased elk population. Increased forage would become available to pronghorn and mule deer on traditional summer range. It is unknown whether increased summer forage at a localized area would result in increased population of these species. Moose would not be temporarily displaced from RLWMA riparian areas during the grazing period. However, it is unknown whether this would impact moose population trend.

Livestock grazing would continue on DNRC and BLM lands, within the boundaries of the RLWMA, that are leased by the LCGA. These property boundaries would need to be re-fenced, at a cost to FWP, to achieve no livestock use of RLWMA deeded and DNRC lands leased by FWP. Increased stocking rate and removal of exiting grazing rest years would be expected on DNRC lands leased by the LCGA, resulting in a reduction of forage available to elk, pronghorn, and mule deer on those lands. Increased stocking rate and removal of regular rest periods would be expected to negatively impact the approximately 114 acres of willow-dominated riparian (Table 2) and 52 acres of aspen-dominated forest (Table 3) within DNRC lands leased by the LCGA.

Relationships between FWP and local livestock interests, tolerance for wild ungulates on private lands, and hunter access to private lands across Madison and Beaverhead counties would be negatively impacted. FWP could no longer meet RLWMA management plan objectives two, three and six. Rangeland and riparian monitoring would continue.

Alternative B: Renew the Existing Grazing Lease with no Changes

Maintain existing rest-rotation grazing management with the RLWMA for nine years (2020–2028). Up to 2,955 AUMs of grazing by cattle would be leased to the LCGA annually following the proposed within year rotation (Table 4) and annual schedule (Table 6). The LCGA would pay a lease fee per AUM grazed that would vary annually depending on fair market value for Montana state and private lands. In exchange for assuming annual fence maintenance responsibility, the LCGA would be charged one-half the annual grazing rate set for Montana state and private lands. The LCGA would be responsible for covering the cost of annual contracted operation and maintenance of the Kelly Spring Waterline.

This alternative would continue the consolidation of FWP deeded (17,302 acres) and DNRC leased (10,786 acres) land, and LCGA leased DNRC (3,600 acres) and BLM (680 acres) land into a common grazing system. Grazing management within the RLWMA would continue to be coordinated with adjacent USFS and BLM allotments.

The 3,600 acres of DNRC land leased by the LCGA known as the McGuire Parcel (Figure 1) would remain part of the RLCGS through an exchange of use agreement with the LCGA. The LCGA would agree to rest the parcel every third year in

exchange for an annual grazing fee credit equal to one-third the annual lease amount paid to DNRC for the parcel.

Incorporating regular rest from livestock grazing into the McGuire parcel benefits the acres of willow- and aspen-dominated habitat within the parcel, which provides browse used by wintering moose (Figure 17). The parcel also receives annual use by elk during early-winter and spring and mule deer, pronghorn, greater sage-grouse, and dozens of non-game bird species during snow-free months.

Relationships between FWP and local livestock interests, local tolerance for wildlife and hunters on private lands across Madison and Beaverhead counties would be maintained or improved. FWP could continue to achieve RLWMA management plan objectives two, three and six and would likely continue to meet management objectives one, four, five, seven, eight, and nine. Rangeland and riparian monitoring would continue.

Alternative C (Preferred Alternative): Renew the Existing Grazing Lease with two Adjustments

Maintain existing rest-rotation grazing management with the RLWMA for nine years (2020–2028) with two adjustments:

1. During every third year, when cattle start the annual grazing rotation in the Dry Hollow Pasture, change the prescription from: livestock graze the entire pasture during June 22–July 6; to livestock graze the lower elevation portion of the pasture during June 22–July 6 and graze the entire pasture during July 6–July 15. This would be accomplished by using an existing two-strand electric fence that approximately divides the pasture (Figure 18); and
2. Adjust the southwest corner of the Rock/Swamp Pasture and develop a water-gap to allow cattle to obtain water from the East Fork of Blacktail Deer Creek (Figure 19). The pasture adjustment would add approximately five acres of smooth brome (*Bromus inermis*)-dominated rangeland to the Rock/Swamp Pasture.

The purpose of proposed adjustment one is two-fold:

1. Remaining in the Dry Hollow Pasture until July 15 will reduce grazing days in the Rock/Swamp Pasture from 41 to 32 and reduce AUs in the same pasture by 29%. Reduced use comes from staying in the Dry Hollow Pasture longer and because 352 AUs would rotate directly to the associated USFS allotment on July 15 instead of grazing in the Rock/Swamp Pasture during July 6–July 15. Reduced grazing days and AUs in the Rock/Swamp Pasture is expected reduce identified livestock impacts to the Rock Creek Watershed and improve riparian health there; and
2. Because of available surface water, shade relief provided by willow canopies, and better forage quality, cattle tend to distribute across the high-elevation or southern portion of the pasture throughout the grazing period. The proposed adjustment would address this by preventing cattle from immediately moving to the high elevation portion of the pasture. The proposed adjustment would more evenly distribute cattle grazing across the entire pasture and reduce grazing days in the portion of the pasture containing willow-dominated springs from 15 to 9—reducing grazing impacts to willow-dominated springs.

The proposed adjustment is not expected to negatively impact habitat within the Dry Hollow Pasture. Implementing use of the pasture division fence is expected to improve condition of springs located in the high-elevation portion of the pasture by reducing grazing days there. Increased use of the low-elevation portion of the pasture, where surface water is not present, is currently feasible because of past development of the Kelly Spring Waterline, which provides water to the Dry Hollow Pasture. Total pasture grazing days would increase from 15 to 23. However, this would be 18 fewer grazing days than in the Rock/Swamp Pasture, which is only 140 acres larger and provides ample forage for wintering elk post grazing. The pasture division fence would be dropped to the ground when livestock were not present. There are no expected financial costs associated with the proposed adjustment.

The purpose for proposed adjustment two is further reduction of cattle concentration along Rock Creek by providing an alternative water supply on the opposite end of the pasture. Currently, Rock Creek, Swamp Creek, and two high-elevation springs are the sources of water within the pasture. Many portions of Swamp Creek do not offer cattle a reliable water source because of deep channel incisement. The two high-elevation springs do not offer a reliable water source during late-season dry periods. These conditions often result in Rock Creek providing the sole water supply within the pasture, which has facilitated cattle concentration along the creek and contributed to poor riparian health along some portions. Adding a reliable water supply near the south end of the pasture is expected to distribute cattle more evenly across the pasture and reduce livestock concentration along Rock Creek. Water-gap design would follow those developed along Robb Creek in 2013. Some financial cost would be expected to complete infrastructure developments. Project materials are currently available and stored at the Blacktail WMA.

Up to 2,955 AUMs of grazing by cattle would be leased to the LCGA annually following the proposed within year rotation (Table 4) and annual schedule (Table 6). The LCGA would pay a lease fee per AUM grazed that would vary annually depending on fair market value for Montana state and private lands. In exchange for assuming annual fence maintenance responsibility, the LCGA would be charged one-half the annual grazing rate set for Montana state and private lands. The LCGA would be responsible for covering the cost of annual contracted operation of the Kelly Spring Waterline.

This alternative would continue the consolidation of FWP deeded (17,302 acres) and DNRC leased (10,786 acres) land, and LCGA leased DNRC (3,600 acres) and BLM (680 acres) land into a common grazing system. Grazing management within the RLWMA would continue to be coordinated with adjacent USFS and BLM allotments.

The 3,600 acres of DNRC land leased by the LCGA known as the McGuire Parcel (Figure 1) would remain a part of the RLCGS through an exchange of use agreement with the LCGA. The LCGA would agree to rest the parcel every third year in exchange for an annual grazing fee credit equal to one-third the annual lease amount paid to DNRC for the parcel.

Incorporating regular rest from livestock grazing into the McGuire parcel benefits the acres of willow- and aspen-dominated habitat within the parcel, which provides browse used by wintering moose (Figure 17). The parcel also receives annual use by elk during early-winter and spring and mule deer, pronghorn, greater sage-grouse, and dozens of non-game bird species during snow-free months.

Relationships between FWP and local livestock interests, tolerance for wildlife and hunters on private lands across Madison and Beaverhead counties would be maintained or improved. FWP could continue to achieve RLWMA management plan objectives two, three and

six and would likely continue to meet management objectives one, four, five, seven, eight, and nine. Rangeland and riparian monitoring would continue.

10. Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:

None.

PART II. ENVIRONMENTAL REVIEW CHECKLIST

Evaluation of the impacts of the Proposed Action including secondary and cumulative impacts on the Physical and Human Environment.

A. PHYSICAL ENVIRONMENT

1. <u>LAND RESOURCES</u> Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Soil instability or changes in geologic substructure?		X				
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil, which would reduce productivity or fertility?			X			
c. Destruction, covering or modification of any unique geologic or physical features?		X				
d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?			X			
e. Exposure of people or property to earthquakes, landslides, ground failure, or other natural hazard?		X				

1.b,d. Some impacts to soil conditions will occur due to trampling, trailing, or grazing in localized high use areas, especially around water tanks, salting areas, and along portions of streams. The scale of disturbance is not likely to facilitate significant negative impacts across the grazing area. Grazing management adjustments are being proposed to address known localized soil impacts along Rock Creek. The grazing prescription is relatively conservative. Therefore, the risk of broad-scale overgrazing-induced erosion is minimal. Hoof action from livestock grazing should provide a positive benefit to soil quality by helping to break down residual vegetative material and returning nutrients to the soil.

2. <u>AIR</u> Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Emission of air pollutants or deterioration of ambient air quality? (Also see 13 (c).)		X				
b. Creation of objectionable odors?			X			
		X				

c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?						
d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?		X				
e. For P-R/D-J projects, will the project result in any discharge, which will conflict with federal or state air quality regulations? (Also see 2a.)		X				

2.b. Odors produced by domestic livestock, while present in an area, may be objectionable to some segments of the public. However, livestock grazing has occurred on the RLWMA annually for many decades. The proposed action would not facilitate change from past impacts that have proven tolerable to most users. Additionally, odors will be temporary in space and time. Portions of the RLWMA would offer recreational opportunities without livestock-associated odors throughout the recreation seasons.

3. <u>WATER</u> Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?			X			
b. Changes in drainage patterns or the rate and amount of surface runoff?		X				
c. Alteration of the course or magnitude of floodwater or other flows?		X				
d. Changes in the amount of surface water in any water body or creation of a new water body?		X				
e. Exposure of people or property to water related hazards such as flooding?		X				
f. Changes in the quality of groundwater?		X				
g. Changes in the quantity of groundwater?		X				
h. Increase in risk of contamination of surface or groundwater?			X			
i. Effects on any existing water right or reservation?		X				
j. Effects on other water users as a result of any alteration in surface or groundwater quality?		X				
k. Effects on other users as a result of any alteration in surface or groundwater quantity?		X				
l. For P-R/D-J, will the project affect a designated floodplain? (Also see 3c.)		X				
m. For P-R/D-J, will the project result in any discharge that will affect federal or state water quality regulations? (Also see 3a.)		X				

3.a,h. Impacts to water quality, quantity, and distribution will be minimal. Expected impacts include temporary and localized turbidity from livestock wading in streams and water contamination associated with bodily waste. These conditions would not differ from past years and surrounding landscapes.

4. <u>VEGETATION</u> Will the proposed action result in?	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Changes in the diversity, productivity or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?			X			
b. Alteration of a plant community?		X				
c. Adverse effects on any unique, rare, threatened, or endangered species?		X				
d. Reduction in acreage or productivity of any agricultural land?		X				
e. Establishment or spread of noxious weeds?			X			
f. For P-R/D-J, will the project affect wetlands, or prime and unique farmland?		X				
g. Other:		X				

4.a,e. While vegetation cover and quantity will be decreased while livestock are grazing the area, vegetation quality should increase following grazing treatment because of removing residual decadent plant material. Plant and soil disturbance as the result of grazing may enhance seed placement, germination, and seedling establishment for both desirable and undesirable plant species. Noxious weed establishment and spread is expected to occur with or without livestock grazing and will be addressed through annual noxious weed control.

5. <u>FISH/WILDLIFE</u> Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Deterioration of critical fish or wildlife habitat?			X			
b. Changes in the diversity or abundance of game animals or bird species?		X				
c. Changes in the diversity or abundance of nongame species?		X				
d. Introduction of new species into an area?		X				
e. Creation of a barrier to the migration or movement of animals?		X				
f. Adverse effects on any unique, rare, threatened, or endangered species?		X				
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?		X				
h. For P-R/D-J, will the project be performed in any area in which T&E species are present, and will the project affect any T&E species or their habitat? (Also see 5f.)			X			
i. For P-R/D-J, will the project introduce or export any species not presently or historically occurring in the receiving location? (Also see 5d.)		X				

5.a,h. While grazing, livestock will reduce the amount of forage in the area. It is expected that the project will have a positive long-term impact on habitat for elk, mule deer, pronghorn, and many non-game species of wildlife. Primary species to benefit from the grazing is expected to be elk, mule deer, and pronghorn. The anticipated positive impact is the removal of decadent residual vegetation, which should enhance both spring and fall green-up conditions. Green-up vegetative conditions provide more palatable vegetation for wildlife. Reduction in residual cover could have a localized negative impact on ground nesting birds. Livestock presence may temporally displace moose to adjacent areas without livestock. Sufficient forage and residual cover will be available to wildlife on the remainder of the RLWMA to offset any short-term localized loss due to livestock use. Due to the time and duration of the proposed grazing lease, impacts to any non-game wildlife in the area should be minimal. At a broader scale, ungulate forage quantity will increase as a result of improved tolerance of those species on lands owned by grazing lessees.

B. HUMAN ENVIRONMENT

6. <u>NOISE/ELECTRICAL EFFECTS</u> Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Increases in existing noise levels?		X				
b. Exposure of people to serve or nuisance noise levels?		X				
c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?		X				
d. Interference with radio or television reception and operation?		X				

7. <u>LAND USE</u> Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?		X				
b. Conflicted with a designated natural area or area of unusual scientific or educational importance?		X				
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?		X				
d. Adverse effects on or relocation of residences?		X				

8. <u>RISK/HEALTH HAZARDS</u> Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Risk of an explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or other forms of disruption?		X				
b. Affect an existing emergency response or emergency evacuation plan, or create a need for a new plan?		X				
c. Creation of any human health hazard or potential hazard?		X				
d. For P-R/D-J, will any chemical toxicants be used? (Also see 8a)		X				

9. <u>COMMUNITY IMPACT</u> Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?		X				
b. Alteration of the social structure of a community?		X				
c. Alteration of the level or distribution of employment or community or personal income?		X				
d. Changes in industrial or commercial activity?		X				
e. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?		X				

10. <u>PUBLIC SERVICES/TAXES/UTILITIES</u> Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? If any, specify:		X				
b. Will the proposed action have an effect upon the local or state tax base and revenues?			X			
c. Will the proposed action result in a need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?		X				
d. Will the proposed action result in increased use of any energy source?		X				
e. Define projected revenue sources			X			
f. Define projected maintenance costs.			X			

10.b. The proposed grazing management would maintain summer grazing pasture for multiple local family owned and operated ranching operations, which provides dozens of employment opportunities and tax revenue at the county, state, and federal level.

10.e. The grazing lessee would pay on a per animal unit month basis to graze livestock on the RLWMA. Grazing rates will be set annually based on Montana state and private lands fair market value. Grazing revenue generated from RLWMA grazing management during the 2018 grazing season was \$13,991.

10.f. Administrative costs would be incurred by FWP annually for such things as coordination meetings, lease drafting, grazing management monitoring, and grazing infrastructure repairs. Expected costs are covered through annual operating budgets and are expected to be less than revenue received during the proposed lease period. The proposed

adjustment to the Rock/Swamp Pasture and water-gap development is expected to cost less than \$10,000.

11. <u>AESTHETICS/RECREATION</u> Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?			X			
b. Alteration of the aesthetic character of a community or neighborhood?		X				
c. Alteration of the quality or quantity of recreational/tourism opportunities and settings? (Attach Tourism Report.)		X				
d. For P-R/D-J, will any designated or proposed wild or scenic rivers, trails or wilderness areas be impacted? (Also see 11a, 11c.)		X				

11.a. Domestic livestock and signs of livestock use on the RLWMA may be objectionable to some segments of the public. However, proposed grazing management would not facilitate change from past practices that have proven tolerable to most users. Livestock presence will be temporary in space and time. Portions of the RLWMA would annually offer recreational opportunities without exposure to livestock throughout the recreation seasons.

12. <u>CULTURAL/HISTORICAL RESOURCES</u> Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Destruction or alteration of any site, structure or object of prehistoric historic, or paleontological importance?		X				
b. Physical change that would affect unique cultural values?		X				
c. Effects on existing religious or sacred uses of a site or area?		X				
d. For P-R/D-J, will the project affect historic or cultural resources? Attach SHPO letter of clearance. (Also see 12.a.)		X				

SIGNIFICANCE CRITERIA

13. <u>SUMMARY EVALUATION OF SIGNIFICANCE</u> Will the proposed action, considered as a whole:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources that create a significant effect when considered together or in total.)		X				
b. Involve potential risks or adverse effects, which are uncertain but extremely hazardous if they were to occur?		X				
c. Potentially conflict with the substantive requirements of any local, state, or federal law, regulation, standard or formal plan?		X				
d. Establish a precedent or likelihood that future actions with significant environmental impacts will be proposed?		X				
e. Generate substantial debate or controversy about the nature of the impacts that would be created?			X			
f. For P-R/D-J, is the project expected to have organized opposition or generate substantial public controversy? (Also see 13e.)		X				
g. For P-R/D-J, list any federal or state permits required.		X				

13.E. Domestic livestock and signs of livestock use on the RLWMA or any public lands have been objectionable to some segments of the public. Proposed grazing management would not facilitate change from past practices that have proven tolerable to most users.

PART III. NARRATIVE EVALUATION AND COMMENT

See above narrative.

PART IV. PUBLIC PARTICIPATION

1. Public involvement:

The public will be notified in the following manners to comment on this current EA, the proposed action and alternatives:

- Two public notices in each of these papers:
 - The Montana Standard
 - The Madisonian
 - The Dillon Tribune
- One statewide press release
- Public notice on the Fish, Wildlife & Parks web page: <http://fwp.mt.gov>.

Copies of this environmental assessment will be distributed to the neighboring landowners and interested parties to ensure their knowledge of the proposed project.

This level of public notice and participation is appropriate for a project of this scope having limited impacts, many of which can be mitigated.

2. Duration of comment period:

The public comment period will extend for (30) thirty days. Written comments will be accepted until 5:00 p.m., Wednesday, March 22, 2019 and can be mailed or emailed to the addresses below:

Dean Waltee
Montana Fish, Wildlife & Parks
PO Box 758, Sheridan, MT 59749
dwaltee@mt.gov

PART V. EA PREPARATION

1. Based on the significance criteria evaluated in this EA, is an EIS required? (YES/NO)? No.

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action

Grazing on the RLWMA has predictable impacts based on 30 years of implementation, therefore the EA is the appropriate level of review.

2. Person(s) responsible for preparing the EA:

Dean J. Waltee
Wildlife Biologist
Montana Fish, Wildlife & Parks

3. List of agencies or offices consulted during preparation of the EA:

None.

References

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- Hill, E.P. 1982. Beaver. Pages 256–281 *in* J.A. Chapman, and G.A. Feldhamer, editors. *Wild mammals of North America: Biology, management, and economics*. Johns Hopkins University Press, Baltimore, Maryland
- Hormay, A. L. 1970. Principles of rest-rotation grazing and multiple use land management. U.S. Forest Service Training Text No. 4 (2200), US Government Printing Office, 19700-385-056. 25 pp.
- Hansen, Dr. P. 2014. Personal Communication. Riparian and Wetland Plant Ecologist. Ecological Solutions Group LLC. Stevensville, Montana.
- Harrington, B. 2014. Personal Communication. Plant Ecologist. Montana Department of Fish, Wildlife and Parks. Bozeman, Montana.
- Ritter, T. and C. Gower. 2013. Evaluation of Small Mammal Capture Rate and Species Diversity within a Rest-rotation Grazing System on the Robb-Ledford Wildlife Management Area. Montana Fish, Wildlife and Parks Final Report. Region 3. 1400 South 19th Avenue, Bozeman, Montana 59718.
- Ritter, T. and C. Gower. 2014. Beaver Use on the Robb-Ledford and Gravelly-Blacktail Wildlife Management Areas in Southwest Montana. Montana Fish, Wildlife and Parks Final Report. Region 3. 1400 South 19th Avenue, Bozeman, Montana 59718.
- Montana Fish, Wildlife & Parks. 2013. Vegetation Assessment Data for the Robb/Ledford Wildlife Management Area. Region 3. 1400 South 19th Avenue, Bozeman, Montana 59718.
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